



US005289169A

United States Patent [19]

[11] Patent Number: **5,289,169**

Corfield et al.

[45] Date of Patent: **Feb. 22, 1994**

[54] **COMPOSITE UNDERLINING FUNCTIONS FOR TEXT PROCESSORS**

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,737,922	4/1988	Ogasawara et al.	395/144
4,849,747	7/1989	Ogawa et al.	340/730
5,012,232	4/1991	Fadem	340/748

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[57] **ABSTRACT**

Disclosed are text processing methods and text processing apparatus in an imaging system which images text characters and associated text functions, and specifically images text underline functions. The imaging system operates to control the appearance of rules for underlining functions, by controlling the offset (O), thickness (T) and gap (G) parameters as a function of user input values and as a function of font size (F_{size}) and typeface parameters (Para₁ and Para₂). A plurality of underline algorithms including a homogeneous algorithm and a composite algorithm are provided for controlling rules.

[21] **Appl. No.:** 648,291

[22] **Filed:** Jan. 31, 1991

[51] **Int. Cl.:** G09G 1/06

[52] **U.S. Cl.:** 340/144; 382/61; 395/144; 345/143

[58] **Field of Search:** 382/61; 395/144, 145, 395/146, 147, 148, 149, 150, 151, 143; 340/730, 735, 748, 750

23 Claims, 3 Drawing Sheets

